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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,663	08/22/2001	Bruno Bozionek	112740-266	7913
29177	7590	08/02/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			YIGDALL, MICHAEL J	
			ART UNIT	PAPER NUMBER

2122

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,663

Applicant(s)

BOZIOENEK ET AL.

Examiner

Michael J. Yigdal

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-19 are pending and have been examined. The priority date considered for the application is August 22, 2000.

Drawings

2. The drawings are objected to because some elements of Figure 2 are illustrated in a non-English language. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 12-14 are objected to because of the following informalities: The claims recite the term "interpretator," which was presumably intended to be --interpreter--. Appropriate correction is required.

4. Claim 16 is objected to because of the following informalities: The term "controlled" was perhaps intended to be --control--, based upon the limitations recited in dependent claim 18. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-11, 15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,805,896 to Burgess (hereinafter "Burgess").

With respect to claim 1, Burgess discloses a process for automatically producing software for a computer using a plurality of components which exist in executable code (see column 2, lines 15-50), comprising the steps of:

(a) providing an input interface for each of the components in which respective methods of each of the components are defined which can be called and implemented as part of the respective component (see column 2, line 67 to column 3, line 2, which shows that each

component has input ports, i.e. an input interface, and column 4, lines 1-16, which shows that associated functions or methods are defined and implemented as part of each component and can be called);

(b) providing an output interface for each of the components in which respective data formats are defined for data of a respective event as a result of implementation of one of a respective method and a respective component, and in which respective further methods are defined which can be called in the respective component but are not executably contained in the respective component (see column 2, line 67 to column 3, line 2, which shows that each component has output ports, i.e. an output interface, for sending particular types or formats of events, and column 4, lines 1-16, which shows that the sending of events results from implementing a corresponding function or method, and which further shows that functions or methods contained in other components are defined and can be called);

(c) depicting, in a graphical editor, a symbol corresponding to one of the components having a respective input interface and a respective output interface (see column 3, lines 7-15, which shows a visual or graphical editor for depicting components, and FIG. 4, which shows symbols corresponding to the components with input and output interfaces);

(d) offering a selection option for directional linking of an output interface of one of the components to an input interface of another of the components (see column 3, lines 28-31, which shows selecting components and connecting or linking the components together, and lines 55-58, which shows directional links between the output and input interfaces); and

(e) producing a program code linking the one component to the another component based on links made (see column 4, lines 35-48, which shows producing a class, i.e. program code, for linking the components based on the connections or links made).

With respect to claim 2, Burgess further discloses at least one of the following steps:

(a) calling a respective method, via the program code and based on a respective event, which is defined in the input interface of the another component, and transferring, via the program code, the data of the respective event to the respective method which is called, the data being expected by the method which is to be called (see column 4, lines 1-16, which shows calling a function or method and transferring the data to another component, and column 3, lines 58-67, which shows that the event data is expected by the component); and

(b) converting, via the program code, the respective data formats of the callable methods in the output interface of the one component into the respective data formats of the available methods of the input interface of the another component, and converting the methods into one another (see column 4, line 58 to column 5, line 7, which shows formatting or converting the data formats of the parameters for the functions or methods associated with the input and output interfaces of the components).

With respect to claim 3, Burgess further discloses at least one of the following steps:

(a) comparing the definition of the method to be called in the output interface of the one component with the definition of available methods of the input interface of the another component (see column 4, lines 16-34, which shows comparing the prototypes or definitions of the functions or methods associated with the input and output interfaces of the components); and

(b) comparing the respective data formats of an event of the output interface of the one component with the respective data formats to be transferred to a method of the input interface of the another component (see column 6, line 57 to column 7, line 6, which shows comparing the data formats of the events for the functions or methods associated with the input and output interfaces of the components).

With respect to claim 4, Burgess further discloses at least one of the following steps:

(a) matching the data formats of the callable methods in the output interface of the one component to the data formats of the available methods of the input interface of the another component (see column 4, lines 16-34, which shows matching the prototypes or formats of the functions or methods associated with the input and output interfaces of the components); and

(b) matching the data formats of the event of the output interface of the component to the data formats to be transferred to the method of the input interface of the another component if they are not compatible (see column 6, line 57 to column 7, line 6, which shows matching the data formats of the events for the functions or methods associated with the input and output interfaces of the components).

With respect to claim 5, Burgess further discloses the limitation wherein a link from one of an event and a method of the output interface of the one component to a plurality of methods of the input interface of the another component can be chosen (see column 2, lines 64-66, which shows that each component has a plurality of input and output ports, i.e. methods of the input and output interfaces, and column 3, lines 28-31, which shows choosing components and connecting or linking the components together).

With respect to claim 6, Burgess further discloses the step of:

(a) determining a condition for selecting the methods of the input interface of the another component for the link (see column 3, lines 58-67, which shows determining a condition based on the event type for selecting input ports, i.e. methods of the input interface, to connect or link to another component).

With respect to claim 7, Burgess further discloses the limitation wherein an input interface and an output interface belong to the same component (see column 2, line 67 to column 3, line 2, which shows that the same component has both input ports and output ports, i.e. an input interface and an output interface).

With respect to claim 8, Burgess further discloses the limitation wherein a plurality of links can be made for a method of an input interface (see column 5, line 63 to column 6, line 6, which shows adding a plurality of connections or links for a function or method of an input interface).

With respect to claim 9, Burgess further discloses the limitation wherein a component can be represented a plurality of times as a symbol (see FIG. 4, which shows a component represented a plurality of times as a symbol).

With respect to claim 10, Burgess further discloses the limitation wherein the symbols for components can be arranged freely on a display area of the graphical editor (see column 10, lines 37-49, which shows placing and arranging components in the editor).

With respect to claim 11, Burgess further discloses the steps of:

(a) producing and compiling the program code in a compiler language (see column 3, lines 16-19, which shows producing program code in the C++ language, a well known compiler language; such programs are inherently compiled in order to run); and

(b) associating the produced and compiled program code with the components to form an executable program (see column 3, lines 10-15, which shows associating the program with objects of the components during execution).

With respect to claim 15, Burgess further discloses the step of:

(a) connecting at least two of the components to form a new complete component, it being possible to stipulate which methods and events of the output interfaces of the at least two components used form the output interface of the complete component, and which methods of the input interfaces of the at least two components used form the input interface of the complete component (see FIG. 4, which shows connecting a plurality of components to form a new component, and column 10, line 66 to column 11, line 9, which shows handling the input and output interfaces of a plurality of components nested in a hierarchy).

With respect to claim 19, the features and limitations recited in the claim are analogous to those of claim 1 (see the explanation for claim 1 set forth above). Note that Burgess further discloses a computer embodiment (see FIG. 9).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2122

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess, as applied to claim 1 above, in view of U.S. Pat. No. 6,381,742 to Forbes et al. (hereinafter "Forbes").

With respect to claim 12, although Burgess discloses producing program code, Burgess does not expressly disclose the limitation wherein the program code is produced in an interpretator language.

However, Forbes discloses a system for managing software packages comprised of components (see the abstract), including program code produced in an interpreter language (see column 2, lines 8-31, which shows the Java language, and further shows that the Java language is popular and platform independent).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the program code of Burgess in an interpreter language, as taught by Forbes, for the purpose of enabling platform independence.

With respect to claim 13, Burgess in view of Forbes further discloses the limitation wherein the interpretator language is XML (see Forbes, column 12, lines 29-38 and column 13, lines 49-60, which shows defining components of a software package with the XML language, in order to account for different operating systems and platforms).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the program code of Burgess in the XML language, as taught by Forbes, for the purpose of further enhancing platform compatibility.

With respect to claim 14, Burgess in view of Forbes further discloses the steps of:

(a) combining the program code with the components as a dynamic link library (see Forbes, column 11, lines 43-65, which shows combining the program code with components of a DLL or dynamic link library); and

(b) combining the program code with an interpretator to form an executable complete program (see Forbes, column 11, lines 43-65, which shows combining the program code with components produced in the Java language, an interpreter language; such programs are inherently run by an interpreter).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the program code of Burgess with a dynamic link library and an interpreter, as taught by Forbes, for the purpose of extending the program with all the necessary components during execution (see Forbes, column 10, line 66 to column 11, line 10).

9. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess, as applied to claim 1 above, in view of U.S. Pat. No. 6,681,001 to Clayton et al. (hereinafter "Clayton").

With respect to claim 16, although Burgess discloses producing software, Burgess does not expressly disclose the limitation wherein the software is controlled software for a telecommunications installation.

However, Clayton discloses a computer-integrated telecommunications system (see the abstract), including control software that serves as an interface for sending event data between telecommunications hardware and a network (see column 12, line 58 to column 13, line 3). The system improves integration, performance and reliability (see column 2, lines 46-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce software in the manner of Burgess comprising control software, as taught by Clayton, in order to improve the performance and reliability of computer-integrated telecommunications systems.

With respect to claim 17, Burgess in view of Clayton further discloses the limitation wherein the telecommunications installation is a telephone exchange (see Clayton, column 1, lines 10-14, which shows telephone exchange systems).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce software in the manner of Burgess comprising control software for a telephone exchange, as taught by Clayton, in order to improve the performance and reliability of computer-integrated telecommunications systems.

With respect to claim 18, Burgess in view of Clayton further discloses the limitation wherein the control software is on a control computer in the telecommunications installation (see column 11, lines 26-35, which shows that the software runs on a server, i.e. a control computer, in the telecommunications system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce software in the manner of Burgess comprising control software on a

control computer, as taught by Clayton, in order to improve the performance and reliability of computer-integrated telecommunications systems.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. Pat. No. 6,564,368 to Beckett et al. discloses a system and method for visual program development without programming. U.S. Pat. No. 5,850,548 to Williams discloses a system and method for visual programming based on a high-level hierarchical data flow model.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is (703) 305-0352. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mjy

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SUPERVISORY PATENT EXAMINER

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Art Unit 2122